

IN THE CLAIMS

Please amend the claims as follows:

1 5. (Thrice Amended) Interposer, according to claim 43, further comprising:
D 2 a subset of the second set of resilient contact structures mounted directly to the second
3 [plurality] set of terminals.

1 8. (Thrice Amended) Probe Card Assembly, comprising:
2 a probe card having a first surface, a second surface and a plurality of contact terminals on
3 the first surface thereof;
4 an interposer having a first surface, a second surface, a second plurality of elongate
5 resilient contact structures extending from the second surface thereof and a first plurality of
6 elongate resilient contact structures extending from the first surface thereof; and
7 a space transformer having a first surface, a second surface, a plurality of contact pads
8 disposed on the second surface thereof, and a third plurality of elongate resilient contact structures
9 extending from the first surface thereof;
10 wherein:
11 the second plurality of elongate resilient contact structures effect a pressure connection
12 with the contact terminals of the probe card; and
13 the first plurality of elongate resilient contact structures effect a pressure connection with
14 the contact pads of the space transformer.

03 9. (Twice Amended) Probe Card Assembly, according to claim 8, wherein:
1 the third plurality of elongate resilient contact structures are mounted directly to terminals
2 on the first surface of the space transformer.

04 10. (Amended) Probe Card Assembly, according to claim 8, wherein:

2 the first plurality of elongate resilient contact structures are composite interconnection
3 elements.

1 11. (Amended) Probe Card Assembly, according to claim 8, wherein:
2 the second plurality of elongate resilient contact structures are composite interconnection
3 elements.

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1 12. (Amended) Probe Card Assembly, according to claim 8, wherein:
2 the third plurality of elongate resilient contact structures are composite interconnection
3 elements.

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1 13. (Thrice Amended) Probe Card Assembly, according to claim 8, wherein:
2 one or more of the first plurality of elongate resilient contact structures are a composite
3 structure, wherein the composite structure includes a resilient material of sufficient dimension to
4 act resiliently, the resilient material connected to a precursor material, the precursor material having
5 a springable shape but not having material properties and dimensions to act resiliently in the
6 absence of the connected resilient material.

1 14. (Thrice Amended) Probe Card Assembly, according to claim 8, wherein:
2 one or more of the second plurality of elongate resilient contact structures are a composite
3 structure, wherein the composite structure includes a resilient material of sufficient dimension to act
4 resiliently, the resilient material connected to a precursor material, the precursor material having a
5 springable shape but not having material properties and dimensions to act resiliently in the absence
6 of the connected resilient material.

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1 27. (Twice Amended) Probe Card Assembly, according to claim 8, wherein:
2 the contact pads are disposed at a first pitch on the second surface of the space transformer;

3 the third plurality of elongate resilient contact structures are disposed at a second pitch on
4 the first surface of the space transformer; and
5 the first pitch is greater than the second pitch.

1 28. (Twice Amended) Probe Card Assembly, according to claim 8, wherein:
2 the first plurality of elongate resilient contact structures are disposed at a first pitch on the
3 first surface of the interposer;
4 the second plurality of elongate resilient contact structures are disposed at a second pitch on
5 the second surface of the interposer; and
6 the first pitch is substantially the same as the second pitch.

1 29. (Twice Amended) Probe Card Assembly, according to claim 8, wherein:
2 the contact pads are disposed at a first pitch on the second surface of the space transformer;
3 the third plurality of elongate resilient contact structures are disposed at a second pitch on
4 the first surface of the space transformer;
5 the first plurality of elongate resilient contact structures are disposed at the first pitch on the
6 first surface of the interposer;
7 the second plurality of elongate resilient contact structures are disposed at the first pitch on
8 the second surface of the interposer; and
9 the first pitch is greater than the second pitch.

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1 30. (Thrice Amended) Probe Card kit, comprising:
2 a space transformer having a first surface, a second surface, a plurality of contact pads
3 disposed on the second surface thereof, and a plurality of elongate contact structures connected to
4 the first surface thereof, said space transformer adapted in use such that contact regions of the
5 plurality of elongate contact structures pressure contacts with a corresponding plurality of contact
6 areas on a semiconductor wafer; and

7 an interposer having a first surface, a second surface, a first plurality of elongate resilient
8 contact structures extending from the first surface thereof, said interposer adapted in use such that
9 contact regions of the first plurality of elongate resilient contact structures make pressure
10 connections with the plurality of contact pads on the second surface of the space transformer, the
11 ^{resilient} interposer having a second plurality of elongate contact structures extending from the second
12 surface thereof, said interposer adapted in use for contact regions of the second plurality of
13 elongate resilient contact structures making pressure connections with a plurality of terminals on a
14 probe card.

1 ~~31~~³² 31. (Twice Amended) Probe Card Kit, according to claim ~~30~~³², wherein:

2 the contact pads are disposed at a first pitch on the second surface of the space transformer;
3 the plurality of elongate contact structures are disposed at a second pitch on the first surface
4 of the space transformer; and
5 the first pitch is greater than the second pitch.

1 ~~32~~³³ 32. (Thrice Amended) Probe Card Kit, according to claim ~~30~~³², wherein:

2 the second plurality of elongate resilient contact structures are disposed at a first pitch on
3 the second surface of the interposer;
4 the first plurality of elongate resilient contact structures are disposed at a second pitch on
5 the first surface of the interposer; and
6 the first pitch is substantially the same as the second pitch.

1 ~~33~~³⁴ 33. (Thrice Amended) Probe Card Assembly, according to claim ~~30~~³², wherein:

2 the contact pads are disposed at a first pitch on the second surface of the space transformer;
3 the plurality of elongate contact structures are disposed at a second pitch on the first surface
4 of the space transformer;

5 the second plurality of elongate resilient contact structures are disposed at the first pitch on
6 the second surface of the interposer;

7 the first plurality of elongate resilient contact structures are disposed at the first pitch on the
D9 8 first surface of the interposer; and

9 the first pitch is greater than the second pitch.

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1 35. (Thrice Amended) Probe Card Assembly, according to claim 8, wherein at least some
2 of the elongate resilient contact structures comprise:

3 a composite interconnection element having an end; and

4 a pre-fabricated tip structure joined to the end of the composite interconnection element.

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34. (Amended) Probe Card Assembly, according to claim 8, wherein:

D11 2 the third plurality of elongate resilient contact structures are connected to terminals on the
3 first surface of the space transformer,

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1 35. (Thrice Amended) Probe Card Assembly, comprising:

2 a probe card having a first surface, a second surface and a plurality of contact terminals on
D12 3 the first surface thereof;

4 a space transformer having a first surface, a second surface, a plurality of contact pads
5 disposed on the second surface thereof, and a first plurality of elongate resilient contact structures
6 mounted adjacent to and extending from the first surface thereof;

7 wherein the plurality of contact pads are connected to the plurality of contact terminals of
8 the probe card.

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1 36. (Amended) Probe Card Assembly, according to claim 35, wherein:

2 the first plurality of elongate resilient contact structures are mounted directly to terminals on
3 the first surface of the space transformer.

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1 47. (Amended) Probe Card Assembly, according to claim 45, wherein:

2 the first plurality of elongate resilient contact structures are connected to terminals on the
3 first surface of the space transformer.

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1 48. (Amended) Probe Card Assembly, according to claim 45, wherein:

2 the first plurality of elongate resilient contact structures are composite interconnection
3 elements.

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1 ~~4-52~~. (Thrice Amended) Probe Card Assembly, according to claim ~~45~~, wherein:

2 the contact pads are disposed at a first pitch on the second surface of the space transformer;

3 the first plurality of elongate resilient contact structures each having a contact region, the

4 contact regions disposed at a second pitch; and

4 contact regions disposed at a second pitch; and

5 the first pitch is greater than the second pitch wherein the first pitch is a shortest distance

6 between any two adjacent contact pads and the second pitch is a shortest distance between any two

7 adjacent elongate contact structures.

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1 53. (Amended) Probe Card Assembly, comprising:

2 a probe card having a first surface, a second surface and a plurality of contact terminals on

3 the first surface thereof;

4 a space transformer having a first surface, a second surface, a plurality of contact pads

5 disposed on the second surface thereof, and a first plurality of elongate contact structures mounted

6 adjacent to and extending from the first surface thereof;

7 wherein the plurality of contact pads are connected to the plurality of contact terminals of

8 the probe card.

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